

8737_000010.ST25
SEQUENCE LISTING

<110> The University of Hong Kong
Ng, Hon Mun

<120> Novel HEV Antigenic Peptide and Methods

<130> 8737-000010

<140> US 10/089,292
<141> 2002-08-28

<150> PCT/IB00/01393
<151> 2000-09-28

<150> CA 2,283,538
<151> 1999-09-30

<160> 18

<170> PatentIn version 3.3

<210> 1
<211> 642
<212> DNA
<213> Hepatitis E virus

<220>
<221> CDS
<222> (1)..(642)

<400> 1

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gtt	aag	ctt	tat	aca	tct	gta	gag	aat	gct	cag	cag	gat	aag	ggg	att	96
Val	Lys	Leu	Tyr	Thr	Ser	Val	Glu	Asn	Ala	Gln	Gln	Asp	Lys	Gly	Ile	
			20					25					30			
gca	atc	ccg	cat	gac	atc	gac	ctc	ggg	gag	tct	cgt	gta	gtt	att	cag	144
Ala	Ile	Pro	His	Asp	Ile	Asp	Leu	Gly	Glu	Ser	Arg	Val	Val	Ile	Gln	
		35					40					45				
gat	tat	gac	aac	caa	cat	gag	cag	gac	cga	ccg	aca	cct	tcc	cca	gcc	192
Asp	Tyr	Asp	Asn	Gln	His	Glu	Gln	Asp	Arg	Pro	Thr	Pro	Ser	Pro	Ala	
	50					55					60					
cca	tcg	cgc	cct	ttt	tct	gtc	ctc	cga	gct	aat	gat	gtg	ctt	tgg	ctt	240
Pro	Ser	Arg	Pro	Phe	Ser	Val	Leu	Arg	Ala	Asn	Asp	Val	Leu	Trp	Leu	
65				70					75					80		
tct	ctc	acc	gct	gcc	gag	tat	gac	cag	tcc	act	tac	ggc	tct	tcg	acc	288
Ser	Leu	Thr	Ala	Ala	Glu	Tyr	Asp	Gln	Ser	Thr	Tyr	Gly	Ser	Ser	Thr	
			85					90					95			
ggc	cca	gtc	tat	gtc	tct	gac	tct	gtg	acc	ttg	gtt	aat	gtt	gcg	acc	336
Gly	Pro	Val	Tyr	Val	Ser	Asp	Ser	Val	Thr	Leu	Val	Asn	Val	Ala	Thr	
			100					105					110			
ggc	gcg	cag	gcc	gtt	gcc	cgg	tca	ctc	gac	tgg	acc	aag	gtc	aca	ctt	384
Gly	Ala	Gln	Ala	Val	Ala	Arg	Ser	Leu	Asp	Trp	Thr	Lys	Val	Thr	Leu	

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115

120

125

gat ggt cgc ccc ctt tcc acc atc cag cag tat tca aag acc ttc ttt 432
 Asp Gly Arg Pro Leu Ser Thr Ile Gln Gln Tyr Ser Lys Thr Phe Phe
 130 135 140

gtc ctg ccg ctc cgc ggt aag ctc tcc ttt tgg gag gca ggt act act 480
 Val Leu Pro Leu Arg Gly Lys Leu Ser Phe Trp Glu Ala Gly Thr Thr
 145 150 155 160

aaa gcc ggg tac cct tat aat tat aac acc act gct agt gac caa ctg 528
 Lys Ala Gly Tyr Pro Tyr Asn Tyr Asn Thr Thr Ala Ser Asp Gln Leu
 165 170 175

ctc gtt gag aat gcc gct ggg cat cgg gtt gct att tcc act tac acc 576
 Leu Val Glu Asn Ala Ala Gly His Arg Val Ala Ile Ser Thr Tyr Thr
 180 185 190

act agc ctg ggt gct ggt ccc gtc tct att tcc gcg gtt gct gtt tta 624
 Thr Ser Leu Gly Ala Gly Pro Val Ser Ile Ser Ala Val Ala Val Leu
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gcc ccc cct ccg cgc tag 642
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 210

<210> 2
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 <212> PRT
 <213> Hepatitis E virus

<400> 2

Gln Leu Phe Tyr Ser Arg Pro Val Val Ser Ala Asn Gly Glu Pro Thr
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Val Lys Leu Tyr Thr Ser Val Glu Asn Ala Gln Gln Asp Lys Gly Ile
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Ala Ile Pro His Asp Ile Asp Leu Gly Glu Ser Arg Val Val Ile Gln
 35 40 45

Asp Tyr Asp Asn Gln His Glu Gln Asp Arg Pro Thr Pro Ser Pro Ala
 50 55 60

Pro Ser Arg Pro Phe Ser Val Leu Arg Ala Asn Asp Val Leu Trp Leu
 65 70 75 80

Ser Leu Thr Ala Ala Glu Tyr Asp Gln Ser Thr Tyr Gly Ser Ser Thr
 85 90 95

Gly Pro Val Tyr Val Ser Asp Ser Val Thr Leu Val Asn Val Ala Thr
 100 105 110

Gly Ala Gln Ala Val Ala Arg Ser Leu Asp Trp Thr Lys Val Thr Leu

115

120

125

Asp Gly Arg Pro Leu Ser Thr Ile Gln Gln Tyr Ser Lys Thr Phe Phe
 130 135 140

Val Leu Pro Leu Arg Gly Lys Leu Ser Phe Trp Glu Ala Gly Thr Thr
 145 150 155 160

Lys Ala Gly Tyr Pro Tyr Asn Tyr Asn Thr Thr Ala Ser Asp Gln Leu
 165 170 175

Leu Val Glu Asn Ala Ala Gly His Arg Val Ala Ile Ser Thr Tyr Thr
 180 185 190

Thr Ser Leu Gly Ala Gly Pro Val Ser Ile Ser Ala Val Ala Val Leu
 195 200 205

Ala Pro Pro Pro Arg
 210

<210> 3
 <211> 34
 <212> DNA
 <213> Artificial

<220>
 <223> Cloning Primer ORF2Rb

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34

<210> 4
 <211> 2054
 <212> DNA
 <213> Hepatitis E virus

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gctccctgaa aaaa 2054

<210> 5
<211> 370
<212> DNA
<213> Hepatitis E virus

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ccgccgtcgt gggcgggcgca gcggcggttc cggcggtggt ttctggggtg accggggtga	180
ttctcagccc ttcgcaatcc cctatatcca tccaaccaac cccttcgccc cgatgtcacc	240
gctgcggccg gggctggacc tcgtgttcgc caacccgccc gaccactcgg ctccgcttg	300
cgtgaccagg cccagcgccc cgccgttgcc tcacgtcgta gacctaccac agctggggcc	360
gcgccgctaa	370

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 <213> Hepatitis E virus

<220>
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 <222> (1)..(114)

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acc agg ccc agc gcc ccg ccg ttg cct cac gtc gta gac cta cca cag	96
Thr Arg Pro Ser Ala Pro Pro Leu Pro His Val Val Asp Leu Pro Gln	
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ctg ggg ccg cgc cgc taa	114
Leu Gly Pro Arg Arg	
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<210> 7
 <211> 37
 <212> PRT
 <213> Hepatitis E virus

<400> 7	
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20 25 30	
Leu Gly Pro Arg Arg	
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<220>
 <223> RT Primer E3R

<400> 8

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<210> 9
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 <212> DNA
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<400> 9
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<210> 10
 <211> 34
 <212> DNA
 <213> Artificial

<220>
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<210> 11
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 <212> DNA
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<220>
 <223> Cloning Primer ORF2Ra

<400> 11
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<210> 12
 <211> 30
 <212> DNA
 <213> Artificial

<220>
 <223> Cloning Primer ORF3F

<400> 12
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<210> 13
 <211> 31
 <212> DNA
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<220>
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<400> 13
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<210> 14
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 <213> Artificial

<220>
 <223> PCR Primer A3R

<400> 14
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<210> 15
 <211> 22
 <212> DNA
 <213> Artificial

<220>
 <223> PCR Primer A5F

<400> 15
 ctttgatgac accgtcttct cg 22

<210> 16
 <211> 22
 <212> DNA
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<220>
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<400> 16
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<210> 17
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 <223> PCR Primer B5F

<400> 17
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<210> 18
 <211> 213
 <212> PRT
 <213> Hepatitis E virus

<400> 18

Gln Leu Phe Tyr Ser Arg Pro Val Val Ser Ala Asn Gly Glu Pro Thr
 1 5 10 15

Val Lys Leu Tyr Thr Ser Val Glu Asn Ala Gln Gln Asp Lys Gly Ile
 20 25 30

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Ala Ile Pro His Asp Ile Asp Leu Gly Glu Ser Arg Val Val Ile Gln
 35 40 45

Asp Tyr Asp Asn Gln His Glu Gln Asp Arg Pro Thr Pro Ser Pro Ala
 50 55 60

Pro Ser Arg Pro Phe Ser Val Leu Arg Ala Asn Asp Val Leu Trp Leu
 65 70 75 80

Ser Leu Thr Ala Ala Glu Tyr Asp Gln Ser Thr Tyr Gly Ser Ser Thr
 85 90 95

Gly Pro Val Tyr Val Ser Asp Ser Val Thr Leu Val Asn Val Ala Thr
 100 105 110

Gly Ala Gln Ala Val Ala Arg Ser Leu Asp Trp Thr Lys Val Thr Leu
 115 120 125

Asp Gly Arg Pro Leu Ser Thr Ile Gln Gln Tyr Ser Lys Thr Phe Phe
 130 135 140

Val Leu Pro Leu Arg Gly Lys Leu Ser Phe Trp Glu Ala Gly Thr Thr
 145 150 155 160

Lys Ala Gly Tyr Pro Tyr Asn Tyr Asn Thr Thr Ala Ser Asp Gln Leu
 165 170 175

Leu Val Glu Asn Ala Ala Gly His Arg Val Ala Ile Ser Thr Tyr Thr
 180 185 190

Thr Ser Leu Gly Ala Gly Pro Val Ser Ile Ser Ala Val Ala Val Leu
 195 200 205

Ala Pro Pro Pro Arg
 210